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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,156	01/28/2004	Eric C. Hannah	42P11433C	4627
7590 04/16/2008 Blakely, Sokoloff, Taylor & Zafman LLP 7th Floor 12400 Wilshire Boulevard Los Angeles, CA 90025			EXAMINER WILLIAMS, LAWRENCE B	
			ART UNIT	PAPER NUMBER
			2611	
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			04/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/767,156

Applicant(s)

HANNAH, ERIC C.

Examiner

LAWRENCE B. WILLIAMS

Art Unit

2611

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the PTO-892 of prior application No. 09/895,133 have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO/SB/08A and 08B form, must be filed within the set period for reply to this Office action.

Specification

2. The disclosure is objected to because of the following informalities:

a.) Line 5 of paragraph [0038] recites "programmable amplifiers 552". The examiner assumes applicant meant programmable amplifiers 554.

b.) Lines 6-7 of paragraph [0038] recite, "a first MEMS based delay line 520 and a delay/amplitude echo map block 530". From earlier references, the examiner assumes applicant meant a first MEMS based delay line 530 and a delay/amplitude echo map block 540.

Appropriate correction is required.

Claim Objections

3. Claim 20 is objected to because of the following informalities: Claim 20 recites the limitation "the pulse signal" in line 4. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,711,216 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-7 are generic to all that is recited in claims 1-7 of US Patent 6,711,216 B2. That is, claims 1-7 are anticipated by claims 1-7 of US Patent 6,711,216 B2.

With regard to claim 1, the method comprising; transmitting... as disclosed in claim 1 of the instant application can be found in claim 5 of US Patent 6,711,216 B2.

With regard to claim 2, the predistorting signal transmissions of claim 2 can be found in claim 6 of US Patent 6,711,216 B2.

With regard to claim 3, the pre-distorting further comprises.... can be found in claim 7 of US Patent 6,711,216 B2).

With regard to claim 4, the receiving a pulse signal can be found in claim 1 of US Patent 6,711,216 B2.

With regard to claim 5, the transmitting the delay/amplitude map.... can be found in claim 2 of US Patent 6,711,216 B2.

With regard to claim 6, the removing channel echoes from input transmissions.... can be found in claim 3 of US Patent 6,711,216 B2.

With regard to claim 7, the removing channel echoes from input transmission signals.... can be found in claim 4 of US Patent 6,711,216 B2.

3. Claims 8-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8-14 of U.S. Patent No. 6,711,216 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 8-14 are generic to all that is recited in claims 8-14 of US Patent 6,711,216 B2. That is, claims 8-14 are anticipated by claims 8-14 of US Patent 6,711,216 B2.

With regard to claim 8, claim 8 discloses a computer readable medium including program instructions that direct a computer to function in a specified manner when executed by a processor... This limitation is obvious in view of claim 8 of US Patent 6,711,216 B2 disclosure of "a processor having circuitry to execute instructions". A computer readable medium would be obvious. The remaining limitations of claim 8 of the instant application are disclosed in claim 12 of US Patent 6,711,216 B2.

With regard to claim 9, the predistorting signal transmission..... is disclosed in claim 13 of US Patent 6,711,216 B2.

With regard to claim 10, determining a time delay..... is disclosed in claim 14 of US Patent 6,711,216 B2.

With regard to claim 11, receiving a pulse signal is disclosed in claim 8 of US Patent 6,711,216 B2.

With regard to claim 12, transmitting the delay/amplitude map... is disclosed in claim 9 of US Patent 6,711,216 B2.

With regard to claim 13, removing channel echoes is disclosed in claim 10 of US Patent 6,711,216 B2.

With regard to claim 14, determining a time delay... is disclosed in claim 11 of US Patent 6,711,216 B2.

6. Claims 15-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8, 10, 12-13, 15 of U.S. Patent No. 6,711,216 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 15-19 are generic to all that is recited in claims 8, 10, 12-13, 15 of US Patent 6,711,216 B2. That is, claims 15-19 are anticipated by claims 8, 10, 12-13, 15 of US Patent 6,711,216 B2.

With regard to claim 15, a communication interface is disclosed in claim 12 of US Patent 6,711,216 B2.

With regard to claim 16, receive a delay/amplitude map.... is disclosed in claim 8 of US Patent 6,711,216 B2.

With regard to claim 17, remove channel echoes.... is disclosed in claim 10 of US Patent 6,711,216 B2.

With regard to claim 18, predistort signal transmissions is disclosed in claims 13 of US Patent 6,711,216 B2.

With regard to claim 19, a delay line coupled.... is disclosed in claim 15 of US Patent 6,711,216 B2.

7. Claims 20-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 16-20 of U.S. Patent No. 6,711,216 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 20-25 are generic to all that is recited in claims 16-20 of US Patent 6,711,216 B2. That is, claims 20-25 are anticipated by claims 16-20 of US Patent 6,711,216 B2.

With regard to claim 20, the plurality of communication stations.... is disclosed in lines 2-3 of claim 16 of US Patent 6,711,216 B2. The communication interface is also disclosed in lines 6-10 of claim 16. Though claim 16 does not explicitly disclose repeating the transmission... until a delay/map of the transmission channel is received from the communicating receiving station, claim 16 does teach "repeat the receiving, driving, and sampling for each received pulse....until a delay/amplitude echo map of the transmission channelis complete. It would be obvious that in order for the "repeat the receiving", there would have to be a repeating the transmission of the signal pulse. Thus claim 20 is obvious in view of the limitations disclosed in claim 16 of US Patent 6,711,216 B2.

With regard to claim 21, a back channel... is disclosed in claim 17 of US Patent 6,711,216 B2.

With regard to claim 22, the communications interface is to receive a delay/amplitude map..... is obvious in view of claim 17, since claim 17 discloses a delay/amplitude map is transmitted to the communicating transmission station and also discloses that each of the plurality of communicating stations (which includes the transmission station) includes a communications interface.

With regard to claim 23, claim 18 discloses to generate a synthetic anti-echo for each echo indicated by the delay/amplitude map.....thereby eliminating channel echoes in the received signal, which encompasses the limitation of claim 23 of the instant application.

With regard to claim 24, claim 19 discloses a pre-compensation delay line (predistort signal transmissions).... thereby eliminating channel echoes in the received data signal which encompasses the limitation of claim 24 of the instant application. in claim

With regard to claim 25, a delay line coupled.....varying delay echoes is disclosed in claim 20 of US Patent 6,711,216 B2.

Allowable Subject Matter

8. Claims 1- 15-19, 21 - 25 would be allowable if accompanied with a Terminal Disclaimer to overcome the Double Patenting rejections cited above.

9. Claims 8-14 would be allowable if accompanied with a Terminal Disclaimer to overcome the Double Patenting rejections cited above and if rewritten to overcome the 112 rejection cited above.

11. The following is a statement of reasons for the indication of allowable subject matter: the instant application discloses a method, apparatus, and system. A search of prior art records has fail to teach or suggest;

a method comprising:

“repeating the transmitting of the pulse signal over the transmission channel between the transmitting station and the communication receiving station until a delay/amplitude map of the transmission channel is received from the communication receiving station” as disclosed in claim 1.

an apparatus comprising:

“a communication interface to transmit a pulse signal over a transmission channel to a communication receiving station and to repeat the transmission of the pulse signal over the transmission channel until a delay/amplitude map of the transmission channel is received from the communication receiving station” as disclosed in claim 15.

a system comprising:

“a communications interface to repeat the transmission of the pulse signal over the transmission channel until a delay/amplitude map of the transmission channel is received from the communication receiving station” as disclosed in claim 20.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a.) Burke et al. discloses in US Patent 7,155,231 B2 Transmit Pre-Correction In A Wireless Communications System.

b.) Weisenhorn et al. discloses in US 2006/0285578 A1 Robust Non-Coherent Receiver For PAM-PPM Signals.

c.) Reese et al. discloses in US Patent 5,179,542 Signal Processor.

d.) James et al. discloses in US Patent 5,473,332 RFI Suppression Circuit and Method.

e.) Townsend et al. discloses in US 2002/0036585 A1 Multipath Meter.

f.) Salinger discloses in US Patent 6,252,912 B1 Adaptive Predistortion System.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammad can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw
April 15, 2008

/Lawrence B Williams/
Examiner, Art Unit 2611

/Mohammad H Ghayour/
Supervisory Patent Examiner, Art Unit 2611